

IN THE CLAIMS:

1. (Previously presented) A method for reducing binding of a ubiquitin-proteasome system to a cell surface receptor, the method comprising:

contacting a cell with a peptide that specifically inhibits the interaction of an ubiquitin-proteasome segment with an ubiquitin-proteasome binding site comprising xEFlxxDx (SEQ ID NO: 1), wherein D is aspartic acid, E is glutamic acid, F is phenylalanine, I is isoleucine and x is any other amino acid, wherein said peptide corresponds to the motif of SEQ ID NO: 1;

thus reducing the incidence of the ubiquitin-proteasome system binding the cell surface receptor.

2-7. (Canceled).

8. (Previously presented) The method according to claim 1, wherein said cell surface receptor is a transport protein.

9. (Previously presented) The method according to claim 8, wherein said transport protein is Glut4 insulin regulated glucose transporter.

10-21. (Canceled).

22. (Previously presented) The method according to claim 1, wherein said ubiquitin-proteasome system binding site is located in the intra-cellular part of said cell-surface receptor.

23-26. (Canceled)

27. (Previously presented) The method according to claim 1, wherein said peptide is capable of regulating the activity of a hormone.

28. (Canceled)

29. (Previously presented) The method according to claim 1, wherein said peptide is capable of controlling the availability and or signal transduction capability of said cell surface receptor.

30-32. (Canceled)

33. (Previously presented) The method according to claim 1, wherein said regulating binding of the a ubiquitin-proteasome system at a ubiquitin-proteasome binding site of said protein comprises controlling or up-regulating hormone activity by using an inhibitor said peptide interferes with said ubiquitin-proteasome system regulation of the cell surface receptors of said cell.

34. (Canceled).

35. (Previously presented) The method according to claim 1, wherein said peptide interferes with said ubiquitin-proteasome system regulation of the cell surface receptor of the cell by inhibiting ligand-induced receptor uptake.

36. (Previously presented) The method according to claim 1, wherein said peptide interferes with said ubiquitin-proteasome system regulation of the cell surface receptor of the cell by inhibiting receptor degradation caused by endocytosis.